## ABSTRACT OF THE DISCLOSURE

A Method and System for Emitter Identification Using Transmission Signatures is disclosed. Also disclosed is a system that is able to take in the undemodulated IF of the receiver and perform identification algorithms on that data. The system is further able to perform these functions in real-time and present the operator with an intelligent evaluation as to the identification of an emitter, or the presence of a new emitter. Still further, the system is capable of being fully automated to reduce the processing time to react to the results of the emitter identification. Furthermore, the present invention can feasibly remotely control the emitter identification system over a network and collect the same information from similar systems. In this way, a far more efficient System can be achieved wherein emitters can be determined, tracked, or monitored more quickly from a centralized command facility.